

CURBING SEDIMENT

re-designing concrete curbs for ecological benefit

name: avee oabel

step project category: undergraduate research

step faculty member: Prof Russell Marzette

area of study: landscape architecture / engineering science

what did I do?

Over the course of 10 weeks, I worked with one of my professors (Halina Steiner) on her **research pertaining to concrete curbs and stormwater management**.

I helped to **design, build, and test** a series of patterns carved into the road leading up to the curb / the face of the curb itself.

The whole idea is to capture any trash/ pollutants on the road in a series of grooves. The collected trash (sediment) would then be collected by a street sweeper.

I have also helped **synthesize our findings** in both written, visual, and presentation form. My work has been presented as a part of Knowlton's "Loose Talk" series, in external review boards, and to a firm in Chicago.

My STEP funding was used to pay for my accommodations and food for the summer, as I do not live close to Columbus. I also sought additional funding through the department of engineering.

why did I do it?

I originally intended to use my STEP funding to study abroad, but opted with undergraduate research as it was more **economically feasible** and more **in-line with my professional goals**.

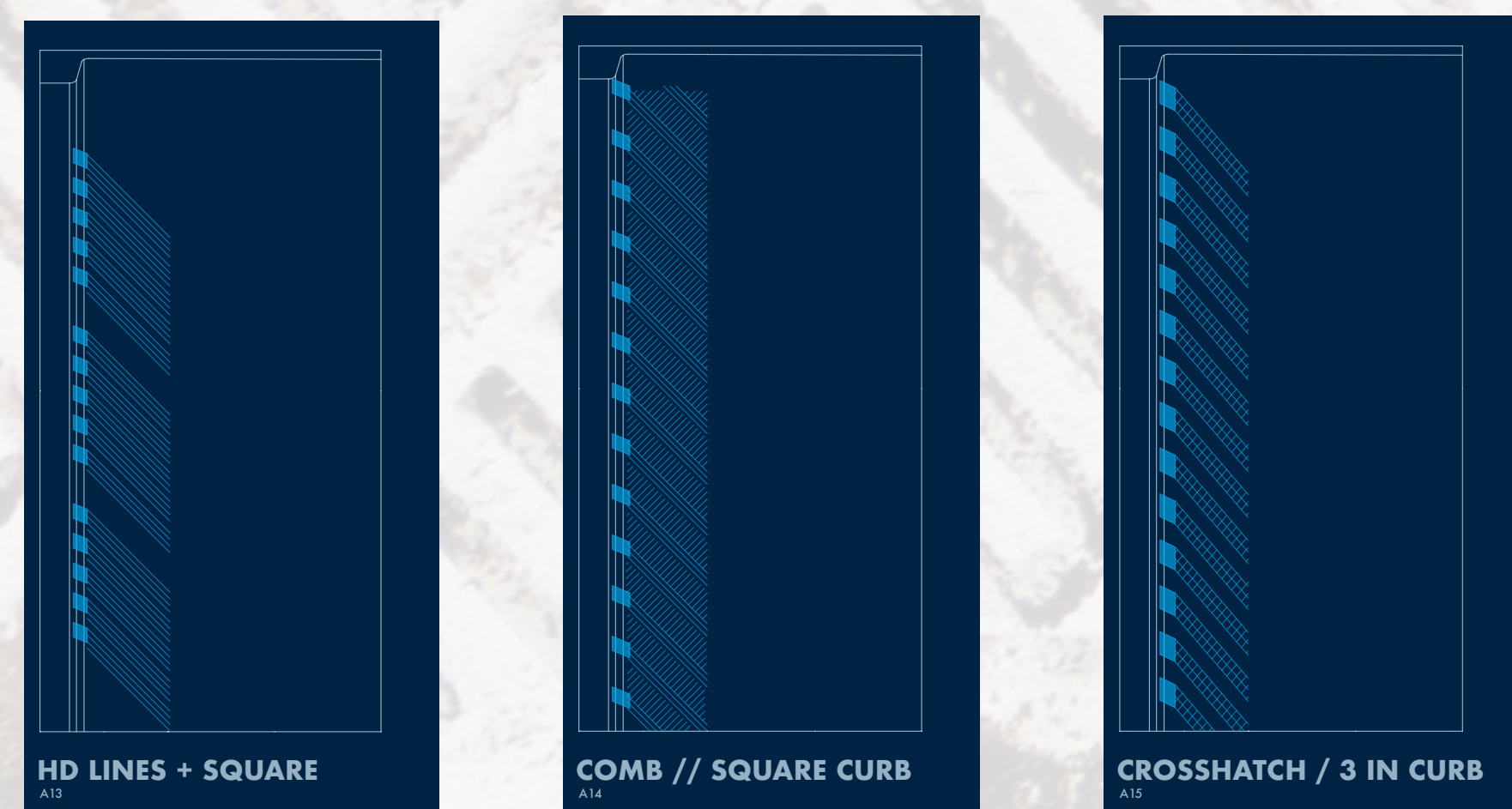
I wanted to **explore** a new side of my intended career field, Landscape Architecture.

I wanted to have the experience of **living independently**.

I wanted to **push the boundaries** of what a Landscape Architect can do, using skills from my Engineering Science minor.

I was approached with this opportunity by my professor.

I knew this research opportunity would lead to **professional development**.



was I "transformed" ?

Yes. My STEP experience helped me to broaden my personal, academic, and professional horizons.

Personally, I developed the skill of managing my own funds and living on my own in a non-residence hall environment.

Academically, the research helped to develop my iterative design skills and further informed me on the importance of stormwater management. Because of my experience I now have the skills to pursue an engineering minor.

Professionally, I had the opportunity to work with two professors at OSU who have since helped me develop a portfolio and ensure I have the skills needed to obtain an internship this upcoming summer.

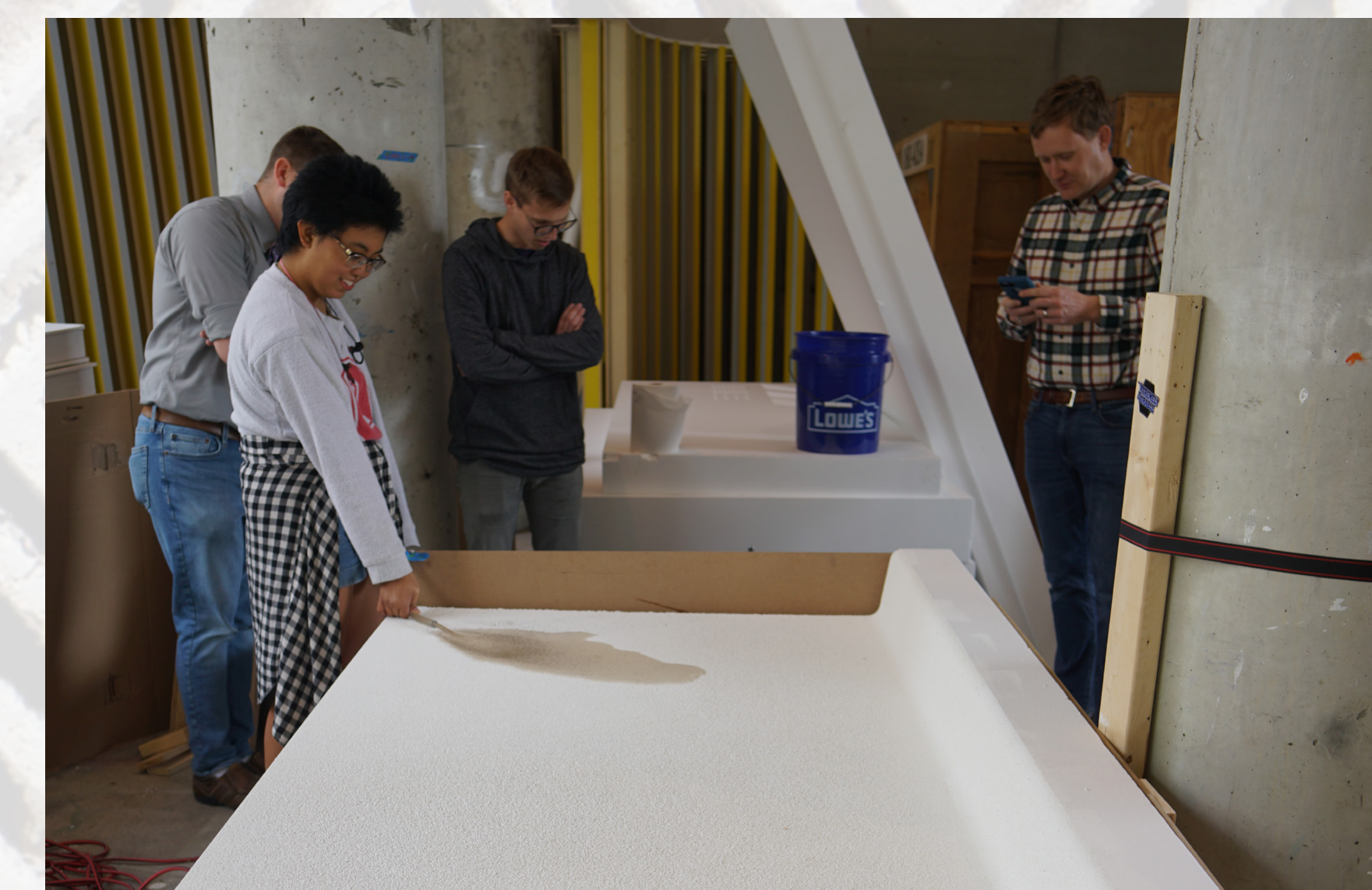
Professionally, I have also been connected to professionals in my field. I have been invited to present my work to a board of professionals and at a design/construction firm separate from OSU.

if you want to do a similar project...

You may need to **seek additional funding**. In addition to the STEP Stipend, I also received a scholarship from the Department of Engineering's Summer Undergraduate Research Program.

You will need to find a professor to advise you.

If you're like me and don't live particularly close to OSU/Columbus, start looking for a sublease early. I saved money on transportation by choosing a place within walking distance of campus.



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